

7. NOTES ON FOETUSES OF MOUSE DEER *TRAGULUS MEMINNA* IN MUDUMALAI WILDLIFE SANCTUARY, TAMIL NADU, SOUTH INDIA

A female adult Mouse deer *Tragulus meminna* was found dead on a road in a dry deciduous forest in Mudumalai Wildlife Sanctuary on 14th March, 1996. The head and forelimbs were severely damaged probably by a vehicle. When I cut open the body to examine the stomach contents, I found two foetuses inside. The developmental stage of the two were not the same, one being about triple the size of the other. Almost in the same location but inside the forest, another pregnant mouse deer (24.5 cm shoulder height) was found dead on 28th of the same month. The vegetation around it and the entire body were badly burnt, hence the cause of death was probably forest fire. Only one well grown foetus was found in the womb. The foetus measured 17 cm in shoulder height and 26 cm body length. The weight was about 520 gm. The colour pattern of the foetus was similar to the adult.

The modern artiodactyls have a litter size of one, but there are some exceptions like Nilgai *Boselaphus tragocamelus*, Four-horned antelope *Tetracerus quadricornis* and the Mouse deer *Tragulus meminna* which often have a litter size of two. Prater says that the mouse deer usually has a

litter size of two and gives birth at the end of the rains or the commencement of the cold season but there is no information on mouse deer's gestation period. Since all the foetuses were collected from dead females, litter size can not be determined correctly, because some deer during gestation period carry even more foetuses than their normal litter size. Since no further information is available, both the litter size (one with one foetus and another with two) can be considered. In the Encyclopedia Britannica Vol 23, the mouse deer's gestation period is stated generally as four months. Hence, the deer's birth season should probably be at the beginning of rains not at the end as reported by Prater (THE BOOK OF INDIAN ANIMALS, BNHS, Bombay). Thus, it may be concluded that the gestation of the mouse deer in this sanctuary would probably be during the dry season.

August 7, 1996

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8. INTERESTING FEEDING HABITS OF THE FLYING FOX *PTEROPUS GIGANTEUS* ON THE PHYLLODES OF AUSTRALIAN ACACIA *ACACIA AURICULAEFORMIS*

The giant fruit bat or flying fox as it is popularly known *Pteropus giganteus* is essentially a fruit eating bat which feeds on the juice of fruits by chewing them dry and spitting the pulp out. But, I have been observing these bats for the last four years in our resort situated in the buffer zone of Kanha National Park, Madhya Pradesh, (22° 17'N, 80° 38' E) feeding extensively on the leaf like phyllodes of Australian acacia, *Acacia auriculaeformis* especially during the summer months which I think has never been reported in the diet of this bat earlier.

Acacia auriculaeformis is a medium sized tree, native of North Australia and Queensland. The tree was introduced for plantation in the semi-arid regions of Bihar, Orissa and West Bengal and is now widely used for social forestry plantations everywhere. It is a quick growing tree and does quite well on degraded land. The tree also shows xerophytic adaptation and what actually look like thick shiny dark green leaves are the rachises modified into phyllodes. I procured a few saplings of this tree in 1987 and planted them in our resort land in Mocha Village which is in the buffer zone of Kanha National Park. The plant

responded quite well and by 1991 we had trees of 2.5-3 m in height. In May 1991, on a full moon evening, I noticed a few flying foxes *Pteropus giganteus* for the first time on the top most branch of an *Acacia auriculaeformis* squabbling and flapping. I wondered what these bats were up to. Coming back next morning to inspect the tree, I noticed some green chunks of residual matter that had been spat out by the bats on the ground. The supple fleshy phyllodes on the top most branch were absent and it was obvious that the bats had fed on them. I decided to observe them again that evening and I noticed more bats had settled on more Acacia trees. There was more squabbling and shrieking as they fed on the phyllodes in a frenzy. Most of them

had settled on the upper branches and apparently they liked the juice of the tender phyllodes. Since then they have been coming every summer in hundreds from March onwards and are surprisingly absent during the winter months. Although now they have almost become pests of these Acacias, destroying most of the tender phyllodes, it is interesting to note a change in the feeding preference of fruit eating bats now relishing the phyllodes of an exotic tree.

September 18, 1996

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9. MALE, FEMALE BURROW OCCUPANCY PATTERN OF THE SOUTH INDIAN GERBIL *TATERA INDICA CUVIERI*

(With one text figure)

Rodents have evolved several physiological and behavioural mechanisms ensuring maximum reproduction (Davies 1991). They may be colonial, solitary, or sometimes both (Barnett and Prakash 1982); and their burrow habits are usually complicated assuring them better protection (Hanney 1975, Prakash and Mathur 1987). Though tropical rodent species are diverse, and economically important, information regarding their field habits are scarce. Hence the present study on the habitat ethology of South Indian gerbil *Tatera indica cuvieri* was undertaken with regard to their burrow occupancy and social grouping.

Studies were conducted in selected coastal areas of Trivandrum district, where the burrows of *Tatera indica cuvieri* are common. Once a burrow was located, the grass and surface soil around 3 m of the burrow were cleared; and all exits used by the animals to escape were closed. The tunnels were then carefully excavated from the entry point into the interior. A soil plug within the tunnel a few feet from the entrance, and the presence of rat fleas in the fresh soil collected from the floor of the tunnel indicate a

currently inhabited burrow. As all the emergency exits were closed prior to breaking into the burrow, the gerbils tend to move to the distal end of the tunnel, where they group together, enabling a complete capture of all animals of the burrow. Altogether 41 burrows, from which complete collections could be made, were considered for detailed study. Animals collected from each burrow were sexed and counted separately, and were categorized into adults, sub adults and juveniles based on the specific morphological features.

Two types of burrow patterns were observed among *Tatera indica cuvieri*; those inhabited by adult females along with young ones (subadults/juveniles), and those inhabited by adult males. The latter were comparatively smaller, with lesser number of branches and fewer emergency exits. From 41 burrows investigated, a clear diversity of male, female burrow occupancy is discernible, the details of which are shown in Fig. 1.

The male living independently, and the females living with young ones (subadults/juveniles) in separate burrows can be a kind of evolutionary